

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for forming a solder resist pattern comprising the steps of:

pre-treating both sides of a double-sided printed circuit board, wherein pre-treating includes scrubbing;

laminating a semi-cured thermosetting film on the both sides of the printed circuit board; and

following laminating, irradiating a laser beam to the laminated semi-cured thermosetting film according to a solder resist mask pattern to selectively remove the thermosetting film, the solder resist mask pattern having been previously designed prior to irradiating.

2. (Canceled)

3. (Currently amended) The method for forming a solder resist pattern according to claim 1, further comprising A method for forming a solder resist pattern comprising the steps of:

pre-treating both sides of a double-sided printed circuit board, wherein pre-treating includes scrubbing;

laminating a semi-cured thermosetting film on the both sides of the printed circuit board; curing the semi-cured thermosetting film after laminating the thermosetting film; and

following curing, irradiating a laser beam to the laminated cured thermosetting film according to a solder resist mask pattern to selectively remove the thermosetting film, the solder resist mask pattern having been previously designed prior to irradiating.

4. (Currently amended) A method for forming a solder resist pattern comprising the steps of:

pre-treating a portion exposed from a plurality of layers constituting a multilayer printed circuit board fabricated by buildup process;

laminating a semi-cured thermosetting film on the pretreated portion; and

following laminating, irradiating a laser beam to the laminated semi-cured thermosetting film according to a solder resist mask pattern to selectively remove the thermosetting film.

5. (Original) The method for forming a solder resist pattern according to claim 4, wherein the pretreatment includes scrubbing.

6. (Currently amended) The method for forming a solder resist pattern according to claim 5, further comprising A method for forming a solder resist pattern comprising the steps of:
pre-treating a portion exposed from a plurality of layers constituting a multilayer printed circuit board fabricated by buildup process;

laminating a semi-cured thermosetting film on the pretreated portion;

curing the thermosetting film after laminating the thermosetting film; and

following curing, irradiating a laser beam to the laminated cured thermosetting film according to a solder resist mask pattern to selectively remove the thermosetting film.

7. (Currently amended) A method for forming a solder resist pattern comprising the steps of:

pre-treating a portion exposed from a plurality of layers constituting a multilayer printed circuit board fabricated in a parallel manner;

laminating a semi-cured thermosetting film on the pretreated portion; and

following laminating, irradiating a laser beam to the laminated semi-cured thermosetting film according to a solder resist mask pattern to selectively remove the thermosetting film.

8. (Original) The method for forming a solder resist pattern according to claim 7, wherein the pre-treatment includes scrubbing.

9. (Currently amended) The method for forming a solder resist pattern according to claim 8, further comprising A method for forming a solder resist pattern comprising the steps of: pre-treating a portion exposed from a plurality of layers constituting a multilayer printed circuit board fabricated in a parallel manner;

laminating a semi-cured thermosetting film on the pretreated portion;
curing the thermosetting film after laminating the thermosetting film; and
following curing, irradiating a laser beam to the laminated cured thermosetting film
according to a solder resist mask pattern to selectively remove the thermosetting film.

10. (Previously presented) The method of claim 1, wherein the laser is a yttrium aluminum garnet laser, excimer laser, or carbon dioxide laser.

11. (Previously presented) The method of claim 4, wherein the laser is a yttrium aluminum garnet laser, excimer laser, or carbon dioxide laser.

12. (Previously presented) The method of claim 7, wherein the laser is a yttrium aluminum garnet laser, excimer laser, or carbon dioxide laser.

13. (Currently amended) A method for forming a solder resist pattern, comprising:
pre-treating both sides of a double-sided printed circuit board to provide pre-treated sides of a printed circuit board;

applying a semi-cured thermosetting film on the pre-treated sides of the printed circuit board to provide a thermoset film on the printed circuit board; and

following applying the semi-cured thermosetting film, irradiating a laser beam on the semi-cured thermoset film to selectively remove the thermoset film to provide a solder resist pattern.

14. (Previously presented) The method of claim 13, wherein pre-treating includes scrubbing.

15. (Currently amended) The method of claim 13, further comprising A method for forming a solder resist pattern, comprising:

pre-treating both sides of a double-sided printed circuit board to provide pre-treated sides of a printed circuit board;

applying a semi-cured thermosetting film on the pre-treated sides of the printed circuit board to provide a thermoset film on the printed circuit board;

curing the thermosetting film to provide a cured thermoset film; and

following curing, irradiating a laser beam on the cured thermoset film to selectively remove the thermoset film to provide a solder resist pattern.

16-21. (Canceled)

22. (Currently amended) A method for forming a solder resist pattern, comprising:

obtaining a substrate with an exposed circuit pattern on the surface thereof;

treating the substrate and the exposed circuit pattern to provide a treated circuit pattern;

applying a semi-cured thermosetting film to the substrate to cover the exposed and treated circuit pattern to provide a thermosetting film as the outermost layer; and

following applying the thermosetting film, removing the semi-cured thermosetting film in selected areas with a laser beam to produce a substrate having a solder resist mask pattern.

23. (Previously presented) The method of Claim 22, comprising obtaining two of the substrates having a solder resist mask and placing one or more insulating layers between said two substrates so that the solder resist mask patterns of said two substrates are the outermost layers, then pressing the two substrates and one or more insulating layers to fabricate a multi-layer printed circuit board.

24. (Previously presented) The method of Claim 22, wherein the substrate comprises a double-sided printed circuit board having circuit patterns on both outermost sides of the printed circuit board and the thermosetting film is applied to cover the circuit patterns on both outermost surfaces and the thermosetting film on both sides is irradiated with a laser beam to provide a solder resist mask pattern on both outermost sides of the double-sided printed circuit board.

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